Montville Power LLC
Montville Generating Station
74 Lathrop Road
Uncasville, CT 06382

April 7, 2017

Permit Coordinator
Bureau of Water Protection and Land Reuse, Remediation Division
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

Subject: TA-326 – Pilot Test Injection Completion Report
Montville Generating Station, Montville Power LLC, Montville, CT

To Permit Coordinator:

In accordance with Section VI.B.3.c of Temporary Authorization No. TA-326 issued on November 9, 2016, Montville Power LLC is submitting this detailed report of the discharge implementation and associated activities at the subject site to the Connecticut Department of Energy and Environmental Protection (CTDEEP) for the groundwater injection pilot test.

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."

Should you have any questions or require further information, please call Mr. Ian Cambridge at (860) 848-6017.

Thank you,

Nick Volturno
Plant Manager
Montville Power LLC

cc: Jessica Stefanowicz, CTDEEP (e-copy only)
Juan Perez, USEPA (e-copy only)
Robert Spooner, NRG (e-copy only)
Ian Cambridge, NRG Montville (hard copy and e-copy)
Andrew D. Walker, LEP, CB&I (e-copy only)

CB&I Environmental and Infrastructure, Inc.
150 Royall Street
Canton, MA 02021
Tel: +1 617 589 5111
Fax: +1 617 589 5495
www.CBI.com

March 24, 2017

Project #: 631207126.12021320

Permit Coordinator
Bureau of Water Protection and Land Reuse, Remediation Division
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5027

Subject: TA-326 – 8 Weeks Post-Injection Monitoring Data Transmittal
Groundwater Injection Pilot Test
Montville Generating Station, Montville, Connecticut

Dear Permit Coordinator:

On behalf of Montville Power LLC (Montville Power) and its parent company, NRG Energy, Inc. (NRG), CB&I Environmental and Infrastructure, Inc. (CB&I) has prepared this data transmittal as required by Section VI.B.3.d of Temporary Authorization (TA)-326 issued by the Connecticut Department of Energy & Environmental Protection (CTDEEP) on November 9, 2016 (CTDEEP, 2016b). This transmittal summarizes the groundwater monitoring conducted 8 weeks after completion of the groundwater injection Pilot Test conducted in accordance with the Groundwater Remedial Action Plan (Groundwater RAP; CB&I, 2016a) and the permit application submitted for TA-326.

Groundwater Sampling

Groundwater monitoring was conducted on February 15, 2017. Groundwater samples were collected from new pilot test area monitoring wells AOC12-MW401, located in the EnviroBlend (EB) injection area, and AOC12-MW402, located in the TerraBond (TB) injection area. Approximate well locations are provided in **Figure 1**.

Depth to groundwater was measured at each of the monitoring wells using an electronic interface probe (IP). The IP used detects water and light non-aqueous phase liquid (LNAPL), if present, to within accuracy of 0.01 foot. LNAPL was not detected in monitoring wells gauged during this event. Depth to water and bottom measurements are included on **Table 1**. The water level data will be converted to elevation after the wells are surveyed.

CB&I collected groundwater samples from the monitoring wells using a modified low flow sampling technique. Each well was pumped at a rate that produced little or no draw down while parameters including temperature, pH, oxidation reduction potential (ORP), dissolved oxygen (DO), conductivity, and turbidity were monitored. Logs of field water quality parameters at these wells are provided in **Attachment 1** and final readings are summarized in **Table 1**. Groundwater samples were then collected after the parameters stabilized to ensure that each sample was representative of local aquifer conditions. Based on the Groundwater RAP and the permit application submitted for TA-326, groundwater samples were submitted to SGS Accutest Laboratories of Marlborough, Massachusetts for analysis of total and dissolved metals (arsenic, iron, magnesium, and vanadium; Method EPA 200.7); sulfate (Method ASTM516-90,02); nitrogen, nitrate and nitrite (Method EPA 353.2); orthophosphate (Method EPA 365.3); nitrogen, nitrite (Method SM 21 4500 NO2 B); total organic carbon (Method SM21 5310 B);

and sulfide (Method SM4500S2-F-11). The complete laboratory analytical report for the 8 weeks post-injection groundwater sampling event is included in **Attachment 2**.

Groundwater Results

Groundwater analytical results from the 8 weeks post-injection sampling event are summarized in **Tables 1 and 2**. As appropriate, **Table 1** compares groundwater analytical results to the Surface Water Protection Criteria (SWPC), Additional SWPC (vanadium), and Alternative SWPC (arsenic). CTDEEP approved the Additional and Alternative SWPC for the subject site in their March 13, 2013 letter (CTDEEP, 2013). **Table 2** compares groundwater analytical results to CTDEEP Water Quality Criteria (WQC) for aquatic life per Section VI.B.1.l of TA-326.

The data presented in **Table 1** indicates:

- Concentrations of total arsenic detected in February 2017 were 9 micrograms per liter (µg/L) at AOC12-MW402 and 31.4 µg/L at AOC12-MW401. The concentrations of total arsenic detected are greater than the Alternative SWPC (10 µg/L) at AOC12-MW401 (plus one field duplicate) and less than the ASWPC at AOC12-MW402. These detections are lower in both wells than the baseline results from December 2016. Dissolved arsenic concentrations are comparable to the total arsenic concentrations in each well.
- Concentrations of total vanadium in February 2017 were non-detect at both wells. These non-detect results are comparable to the low detections of the baseline results from December 2016. The dissolved vanadium concentrations in February 2017 are also non-detects and comparable to the baseline results.
- Total and dissolved iron concentrations in February 2017 were comparable to each other at each well and were lower than the baseline results from December 2016. There are no ASWPC for comparison of results. This parameter was analyzed to evaluate reagent activity and not for compliance monitoring.
- Total and dissolved magnesium concentrations in February 2017 were comparable to each other at each well and were comparable to the baseline results from December 2016. There are no ASWPC for comparison of results. This parameter was analyzed to evaluate reagent activity and not for compliance monitoring.
- Concentrations of nitrate and sulfate detected in February 2017 were higher at AOC12-MW402 than the baseline results from December 2016.
- Concentrations of orthophosphate and sulfate detected in February 2017 were lower at AOC12-MW401 than the baseline results from December 2016.

The data presented in **Table 2** indicate that the concentrations of dissolved arsenic at both wells in February 2017 are less than the acute Water Quality Criteria (WQC) for saltwater of 69 ug/L. There are no WQC for the other metals for comparison.

Laboratory Analytical - QA/QC Evaluation

Laboratory analysis completed as part of this assessment was conducted in accordance with CTDEEP's Reasonable Confidence Protocol and the site specific Quality Assurance Project Plan (QAPP). The site specific QAPP was developed for the subject site in accordance with U.S. Environmental Protection Agency (USEPA) guidance (Shaw, 2011). The QAPP presents the requirements and procedures for conducting field sampling activities and investigations at the site so that (1) the data quality objectives specified for this project are met, (2) the field sampling protocols are documented and reviewed in a consistent manner, and (3) scientifically valid and

defensible data are collected. Field sampling activities discussed above were completed in general compliance with the QAPP that has been generated for the site.

CB&I requested that laboratory analysis be conducted in accordance with the QAPP and CTDEEP's Reasonable Confidence Protocol (CTDEP, 2007). CB&I performed a data validation review for the laboratory report and documented the results in a data validation worksheet. The data validation worksheet is included with the laboratory report in **Attachment 2**. This worksheet is consistent with the data quality assessment and data usability evaluations detailed in CTDEEP guidance (CTDEP, 2009)

In general, laboratory analyses were completed in accordance with the site QAPP and CTDEEP's Reasonable Confidence Protocol. However, a few minor quality assurance/quality control (QA/QC) issues, which are summarized in the validation worksheet and laboratory report narrative, were identified. These identified QA/QC issues resulted in some detection limits and reported results being qualified. QA/QC issues noted included:

- The relative percent differences (RPD(s)) for serial dilution for arsenic, vanadium, iron, and magnesium are outside control limits. However, percent differences are acceptable due to low initial sample concentration (i.e., < 50 times instrument detection limit) and no qualification is necessary.
- The RPD of a serial dilution sample indicated possible matrix interference for iron and magnesium. The iron and magnesium results for AOC12-MW402 were qualified 'J' for estimated since the RPD was greater than 10% due to serial dilution interference.

A number of sample results were reported at concentrations less than the reporting limit, but greater than the method detection limit. Although this is not specifically a QA/QC issue, the results should be considered estimated and are flagged with a "J". In summary, each of the identified issues had no overall effect on the conclusions drawn from the data, and the data is acceptable for the purposes of this submittal.

Summary Review

Total arsenic concentrations in groundwater 8 weeks after completion of the pilot test injection have been reduced by greater than 60 percent compared to baseline in both the TB and EB injection areas and are now less than the ASWPC in the TB injection area. The results will be compared to those from the remaining post-injection sampling event in a subsequent data transmittal.

If you have any questions regarding this letter or any other site matter, please do not hesitate to call me at 617-589-6143.

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."

Sincerely,

Andrew D. Walker, LEP, LSP
Project Manager
CB&I Environmental and Infrastructure, Inc.

Phone: 617-589-6143
E-mail Address: Andrew.Walker@CBI.com

Enclosures:

Tables

Table 1 - Groundwater Analytical Results Compared to ASWPC
Table 2 - Groundwater Analytical Results Compared to Acute WQC

Figure

Figure 1 - Site Plan

Attachments

Attachment 1 – Field Sampling Data Sheets, February 2017
Attachment 2 - Laboratory Analytical Report with Data Validation Worksheet

cc: Ms. Jessica Stefanowicz, CTDEEP (electronic only)
Mr. Ian Cambridge, Montville Power LLC (hard copy and electronic)
Mr. Robert Spooner, NRG (electronic only)
Mr. Juan Perez, USEPA (electronic only)

REFERENCES

CB&I, 2016a. Remedial Action Plan for Groundwater, Montville Electric Generating Station, Montville, Connecticut. CB&I Environmental and Infrastructure, Inc. February 25, 2016 (revisions dated June 16, 2016).

CB&I, 2016b. Site Wide Remedial Action Plan, Montville Generating Station, Montville, Connecticut. CB&I Environmental and Infrastructure, Inc. July 19, 2016.

CB&I, 2017a. TA-326 Baseline Monitoring Data Transmittal, Groundwater Injection Pilot Test, Montville Generating Station, Montville, Connecticut. CB&I Environmental and Infrastructure, Inc. January 23, 2017.

CB&I, 2017b. TA-326 4 Weeks Post-Injection Monitoring Data Transmittal, Groundwater Injection Pilot Test, Montville Generating Station, Montville, Connecticut. CB&I Environmental and Infrastructure, Inc. March 6, 2017.

CTDEP, 2007. Laboratory Quality Assurance and Quality Control Guidance, Reasonable Confidence Protocols Guidance Document. Connecticut Department of Environmental Protection. November 2007.

CTDEP, 2009. Laboratory Quality Assurance and Quality Control, Data Quality Assessment and Data Usability Evaluation. Connecticut Department of Environmental Protection. May 2009.

CTDEEP, 2013. Request for Criteria for Additional Polluting Substances and Alternative Criteria, Montville Station, 74 Lathrop Road, Montville. Connecticut Department of Energy & Environmental Protection. March 13, 2013.

CTDEEP, 2016a. Groundwater Remedial Action Plan, Montville Station, 74 Lathrop Road, Montville, REM ID 4204. June 30, 2016

CTDEEP, 2016b. Temporary Authorization TA-326, Montville Power LLC, Montville Station, 74 Lathrop Road, Montville. November 9, 2016

Shaw, 2011. Quality Assurance Project Plan, NRG Montville Generating Station. Shaw Environmental, Inc. March 2008, Revised August 2011.

TABLES

Table 1
Groundwater Analytical Results Compared to ASWPC
Pilot Test December 2016 - February 2017
Montville Power LLC, Montville, CT

CONSTITUENT	UNITS	Montville Alternative SWPC	AOC12-MW-401 12/2/2016 Primary	AOC12-MW-401 1/17/2017 Primary	AOC12-MW-401 2/15/2017 Primary	AOC12-MW-401 2/15/2017 Duplicate	AOC12-MW-402 12/2/2016 Primary	AOC12-MW-402 12/2/2016 Duplicate 1	AOC12-MW-402 1/17/2017 Primary	AOC12-MW-402 1/17/2017 Duplicate 1	AOC12-MW-402 2/15/2017 Primary
Metals (total)											
Arsenic	(ug/l)	10	{98.2}	{41.0}	{31.4}	{31.9}	{24.3}	{25.2}	{35.2}	{34.2}	9
Iron	(ug/l)	NE	32100	20700	21600	---	1680	1650	1200	---	300J
Magnesium	(ug/l)	NE	5700	<5000	5960	---	1360BJ	1340BJ	<5000	---	<5000J
Vanadium	(ug/l)	4400	25.3BJ	284	<50	---	0.80BJ	<0.72	<50	---	<50
Metals (dissolved)											
Arsenic	(ug/l)	10	{97.0}	{27.3}	{30.2}	{27.7}	{24.1}	{24.3}	{27.6}	{26.3}	8.7
Iron	(ug/l)	NE	33000	20800	20600	---	1670	1700	505	---	140
Magnesium	(ug/l)	NE	5870	5640	5680	---	1370BJ	1370BJ	<5000	---	<5000
Vanadium	(ug/l)	4400	16.0BJ	<50	<50	---	<0.72	0.80BJ	<50	---	<50
Miscellaneous											
Nitrate/Nitrogen	(ug/l)	NE	<110	<110	<110	---	150	---	<110	---	990
Nitrite/Nitrogen	(ug/l)	NE	<10	<10	<10	---	<10	---	<10	---	<10
Nitrogen, Nitrate and Nitrite	(ug/l)	NE	<100	<100	<100	---	150	---	<100	---	1000
Orthophosphate	(ug/l)	NE	140	<100	<100	---	<100	---	<100	---	<100
Sulfate	(ug/l)	NE	146000	85400	93200	---	13800	---	34200	---	18400
Sulfide	(ug/l)	NE	280BJ	<2000	<2000	---	280BJ	---	<2000	---	<2000
TOC	(ug/l)	NE	<1000	<1000	<1000	---	<1000	---	<1000	---	<1000
Field Parameters											
pH		NE	6.36	6.35	6.4	---	6.47	---	7.26	---	8.98
ORP	(mV)	NE	-23.5	-33.7	3.4	---	-4.2	---	-73.1	---	52.7
Dissolved Oxygen	(mg/l)	NE	0.8	0.53	0.49	---	1.23	---	0.55	---	5.26
Specific Conductivity	(mS/cm)	NE	0.386	0.342	0.330	---	0.073	---	0.177	---	0.151
Temperature	(deg.C)	NE	15.3	14.55	14.51	---	14.3	---	12.96	---	4.29
Turbidity	(NTU)	NE	0	0.2	0.4	---	0	---	0.8	---	0.8
Depth to Water (top PVC)	(ft)	--	11.50	12.05	10.85	---	6.60	---	7.25	---	6.20
Depth to Bottom (top PVC)	(ft)	--	22.80	22.85	22.87	---	19.75	---	19.60	---	19.65

Notes:

SWPC = Surface Water Protection Criteria
--- = Constituent not analyzed for.
NE = None Established.
(1)= Approved Alternative and Additional SWPC in March 13, 2013 CTDEEP letter
{Red Highlight} = Result is above appropriate SWPC
ug/l = micrograms per liter
mg/l = milligrams per liter

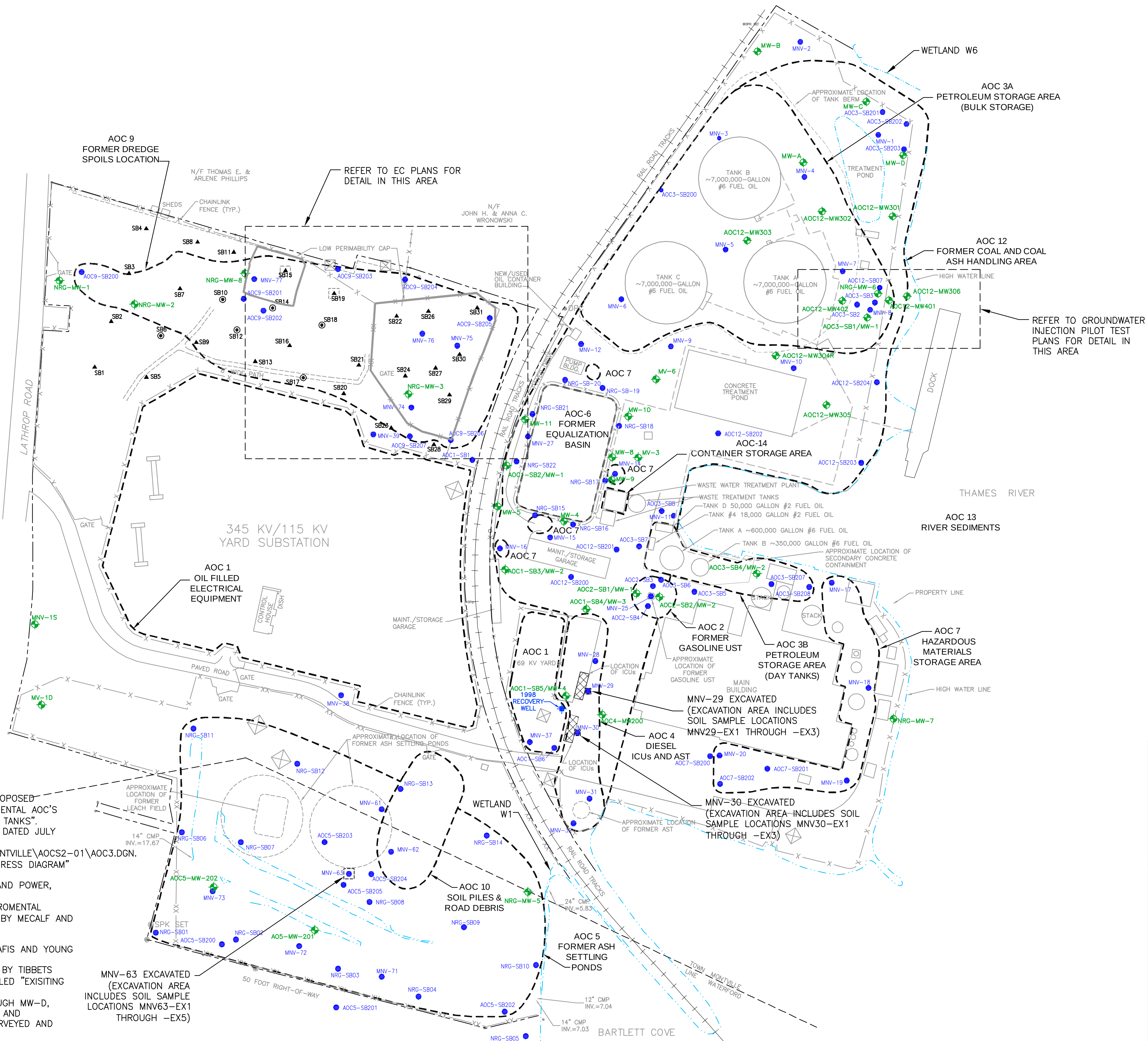
B = Less than detection limit, lab qualifier
J = Less than detection limit, validation qualifier
mV = millivolts
mS/cm = milliseimens per centimeter
deg. C = degrees celcius
NTU = nephelometric turbidity unit
Depth measurements are recorded to top of PVC and will be converted to elevation after the wells are surveyed.
Lab results have been validated.

Table 2
Groundwater Analytical Results Compared to WQC Acute Fresh and Salt
Pilot Test December 2016 - February 2017
Montville Power LLC, Montville, CT

CONSTITUENT	UNITS	Acute WQC Freshwater	Acute WQC Saltwater	AOC12-MW-401 12/2/2016 Primary	AOC12-MW-401 1/17/2017 Primary	AOC12-MW-401 2/15/2017 Primary	AOC12-MW-401 2/15/2017 Duplicate 1	AOC12-MW-402 12/2/2016 Primary	AOC12-MW-402 12/2/2016 Duplicate 1	AOC12-MW-402 1/17/2017 Primary	AOC12-MW-402 1/17/2017 Duplicate 1	AOC12-MW-402 2/15/2017 Primary
Metals (total)												
Arsenic	(ug/l)	340	69	{98.2}	41	31.4	31.9	24.3	25.2	35.2	34.2	9
Iron	(ug/l)	NE	NE	32100	20700	21600	---	1680	1650	1200	---	300J
Magnesium	(ug/l)	NE	NE	5700	<5000	5960	---	1360BJ	1340BJ	<5000	---	<5000J
Vanadium	(ug/l)	NE	NE	25.3BJ	284	<50	---	0.80BJ	<0.72	<50	---	<50
Metals (dissolved)												
Arsenic	(ug/l)	340	69	{97.0}	27.3	30.2	27.7	24.1	24.3	27.6	26.3	8.7
Iron	(ug/l)	NE	NE	33000	20800	20600	---	1670	1700	505	---	140
Magnesium	(ug/l)	NE	NE	5870	5640	5680	---	1370BJ	1370BJ	<5000	---	<5000
Vanadium	(ug/l)	NE	NE	16.0BJ	<50	<50	---	<0.72	0.80BJ	<50	---	<50
Miscellaneous												
Nitrate/Nitrogen	(ug/l)	NE	NE	<110	<110	<110	---	150	---	<110	---	990
Nitrite/Nitrogen	(ug/l)	NE	NE	<10	<10	<10	---	<10	---	<10	---	<10
Nitrogen, Nitrate and Nitrite	(ug/l)	NE	NE	<100	<100	<100	---	150	---	<100	---	1000
Orthophosphate	(ug/l)	NE	NE	140	<100	<100	---	<100	---	<100	---	<100
Sulfate	(ug/l)	NE	NE	146000	85400	93200	---	13800	---	34200	---	18400
Sulfide	(ug/l)	NE	NE	280BJ	<2000	<2000	---	280BJ	---	<2000	---	<2000
TOC	(ug/l)	NE	NE	<1000	<1000	<1000	---	<1000	---	<1000	---	<1000

Notes:
WQC = Numerical Water Quality Criteria for chemical constituents.
ug/l = micrograms per liter.
B = Less than detection limit, lab qualifier
J = Less than detection limit, validation qualifier
--- = Constituent not analyzed for.
NE = None Established.
{Red Highlight} = Result is above WQC
Lab results have been validated.

FIGURE



AOC 9
FORMER DREDGE
SPOILS LOCATION
REFER TO EC PLANS FOR
DETAIL IN THIS AREA
N/F THOMAS E. & ARLENE PHILLIPS
N/F JOHN H. & ANNA C. WRONOWSKI
LOW PERIMABILITY CAP
CHAINLINK FENCE (TYP.)
LATHROP ROAD
345 KV/115 KV
YARD SUBSTATION
AOC 1
OIL FILLED
ELECTRICAL
EQUIPMENT
WETLAND W6
AOC 3A
PETROLEUM STORAGE AREA
(BULK STORAGE)
AOC 12
FORMER COAL AND COAL
ASH HANDLING AREA
REFER TO GROUNDWATER
INJECTION PILOT TEST
PLANS FOR DETAIL IN
THIS AREA
TANK B ~7,000,000-GALLON #6 FUEL OIL
TANK C ~7,000,000-GALLON #6 FUEL OIL
TANK A ~7,000,000-GALLON #6 FUEL OIL
TREATMENT POND
CONCRETE TREATMENT POND
DOCK
AOC-6
FORMER
EQUALIZATION
BASIN
AOC-14
CONTAINER STORAGE AREA
AOC 7
THAMES RIVER
AOC 13
RIVER SEDIMENTS
WASTE WATER TREATMENT PLANT
WASTE TREATMENT TANKS
TANK D 50,000 GALLON #2 FUEL OIL
TANK #4 18,000 GALLON #2 FUEL OIL
TANK A ~600,000 GALLON #6 FUEL OIL
TANK B ~350,000 GALLON #6 FUEL OIL
APPROXIMATE LOCATION OF SECONDARY CONCRETE CONTAINMENT
PROPERTY LINE
AOC 2
FORMER
GASOLINE UST
AOC 3B
PETROLEUM
STORAGE AREA
(DAY TANKS)
AOC 7
HAZARDOUS
MATERIALS
STORAGE AREA
HIGH WATER LINE
AOC 1
69 KV YARD
MAIN BUILDING
1998 RECOVERY WELL
MNV-29 EXCAVATED
(EXCAVATION AREA INCLUDES
SOIL SAMPLE LOCATIONS
MNV29-EX1 THROUGH -EX3)
AOC 4
DIESEL
ICUs AND AST
MNV-30 EXCAVATED
(EXCAVATION AREA INCLUDES SOIL
SAMPLE LOCATIONS MNV30-EX1
THROUGH -EX3)
APPROXIMATE LOCATION OF FORMER ASH SETTLING PONDS
APPROXIMATE LOCATION OF FORMER LEACH FIELD
WETLAND
W1
AOC 10
SOIL PILES &
ROAD DEBRIS
AOC 5
FORMER ASH
SETTLING
PONDS
MNV-63 EXCAVATED
(EXCAVATION AREA
INCLUDES SOIL SAMPLE
LOCATIONS MNV63-EX1
THROUGH -EX5)
50 FOOT RIGHT-OF-WAY
TOWN LINE MONTVILLE WATERFORD
BARTLETT COVE
RAIL ROAD TRACKS

REFERENCE:

1. "FIGURE 6 – PREVIOUS & PROPOSED SAMPLE LOCATIONS OF ENVIRONMENTAL AOC'S NO.3 PETROLEUM BULK STORAGE TANKS". PREPARED BY METCALF & EDDY. DATED JULY 2001. FILE: P:\EVERYONE\NRG\DRAWINGS\MONTVILLE\AOCS2-01\AOC3.DGN.
2. "EMERGENCY INGRESS AND EGRESS DIAGRAM" JUNE 2006 PREPARED BY NRG MONTEVILLE AND POWER, LLC.
3. "FIGURE 2 LOCATION OF ENVIROMENTAL AREAS OF CONCERN" PREPARED BY MECALF AND EDDY. DATED APRIL, 2001.
4. FIELD SURVEY CREATED BY NAFIS AND YOUNG MAY 31, 2006.
5. FIELD SURVEY PLAN CREATED BY TIBBETS ENGINEERING CORPORATION ENTITLED "EXISITING CONDITIONS", DATED 7/10/07.
6. WELL LOCATIONS MW-A THROUGH MW-D, AOC12-MW304R, AOC12-MW401, AND AOC12-MW402 ARE NOT YET SURVEYED AND ARE APPROXIMATE.

LEGEND:

- PROPERTY BOUNDARY
- FUEL OIL PIPING
- FENCE LINE
- NRG-MW-6 — GROUNDWATER MONITORING WELLS
- RECOVERY WELL
- SOIL BORING LOCATION
- SB18 — LOCATION OF DEEP SOIL BORINGS FORMER DREDGE MATERIALS LOCATION INVESTIGATION–OCTOBER, 2000
- SB31 — LOCATION OF SHALLOW SOIL BORINGS FORMER DREDGE MATERIALS LOCATION INVESTIGATION–OCTOBER, 2000
- WETLAND LINE OR WATER COURSE
- DIESEL INTERNAL COMBUSTION (ICU) ENGINE UNITS
- ELECTRICAL TOWER
- AREA OF CONCERN (AOC)

SCALE

0 200 400 FEET

REV	DESCRIPTION / ISSUE	DATE	APPROVED

CB&I
150 Royall Street
Canton MA. 02021

NRG ENERGY, INC.
MONTVILLE POWER LLC
UNCASVILLE, CONNECTICUT

SITE PLAN
MONTVILLE GENERATING STATION
MONTVILLE, CONNECTICUT

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:	SCALE:	DRAWING NO.	SHEET NO.
AW/AS	GJ	PF/VT	AW	1/27/17	AS SHOWN	631207126-B3	--

OFFICE Pittsburgh, PA
DRAWING NUMBER 631207126-B3

File: O:\Shaw Offices – CAD Files\Stoughton, MA\NRG\Montville\631207126\631207126-B3.dwg
Plot Date/Time: Feb 03, 2017 – 3:21pm
Plotted By: joshua.euler

ATTACHMENT 1

FIELD SAMPLING DATA SHEETS, FEBRUARY 2017

Job Name: NRG Montville
Job Number: 631207126-12021320

Measured to Top of PVC: (Yes) No (Circle One)

Well ID: AOC12-MW402 (TB inj. area)	**Date:** 07-15-17	**Depth To Water:** 6.20'	**Depth To LNAPL:** ND	**Depth To Bottom:** 19.65'
Screen Interval: 2-17 ft bgs	**Target Pump Intake Depth:** lower of **10 ft bgs** (well has stickup steel casing) or mid-water column			**Well Depth:** 17 ft bgs
Pump Type: Peristaltic	**Actual Pump Intake Depth:** ~12 ft bgs		**Total Volume Purged:** 6.5L	

Time	Depth to Water (ft.)	Pump Dial Setting[1]	Purge Rate (ml./min.)	Cum. Volume Purged (Liters)	Temperature (°C)	pH (SU)	Specific Conductance (ms/cm)[2]	Dissolved Oxygen (mg/L)	ORP[3] (mV)	Turbidity (NTU)	Comments
Stabilization Criteria			3%		3%	0.1	3%	10% or <2	10	10% or <1	for three consecutive readings
1040	6.21'	low	~~150~~ ml/m		4.31	8.42	0.144	6.98	102.6	39.8	
1045			162.5 ml/m	~~1.5L~~	4.25	8.34	0.147	7.16	93.1	17.5	
1050				~1.5L	4.27	8.54	0.152	6.01	75.6	8.2	
1055	6.20'			~~3L~~	4.32	8.75	0.152	5.48	60.3	3.1	
1100				~3L	4.31	8.86	0.152	5.16	50.1	1.8	
1105				~~4.5L~~	4.34	8.93	0.152	5.09	50.4	1.2	
1110	6.18'			~5L	4.32	8.97	0.151	5.08	55.6	0.3	
1115				6L	4.27	8.99	0.151	5.14	54.9	0.7	
1120	6.16'			~6.5L	4.29	8.98	0.151	5.26	52.7	0.8	Sampled @ 1120

1. Pump dial setting (example: Hertz, cycles/min, etc.)
2. µSiemens per cm (same as µmhos/cm) at 25°C.
3. Oxidation reduction potential (ORP)
4. Target Drawdown not to exceed is 0.3 ft (about 4 inches)

Field Personnel: A. Maynard

Job Name: NRG Montville
Job Number: 631207126-12021320

Measured to Top of PVC: (Yes) No (Circle One)

Well ID: AOC12-MW401 (EB inj. area)	**Date:** 07-15-17	**Depth To Water:** 10.85'	**Depth To LNAPL:** ND	**Depth To Bottom:** 22.87'
Screen Interval: 5-20 ft bgs	**Target Pump Intake Depth:** lower of **13 ft bgs** (well has stickup steel casing) or mid-water column			**Well Depth:** 20 ft bgs
Pump Type: peristaltic	**Actual Pump Intake Depth:** ~16 ft 3 GS		**Total Volume Purged:** ~8 L	

Time	Depth to Water (ft.)	Pump Dial Setting[1]	Purge Rate (ml./min.)	Cum. Volume Purged (Liters)	Temperature (°C)	pH (SU)	Specific Conductance (ms/cm)[2]	Dissolved Oxygen (mg/L)	ORP[3] (mV)	Turbidity (NTU)	Comments
Stabilization Criteria			3%		3%	0.1	3%	10% or <2	10	10% or <1	for three consecutive readings
1245		low	150 ml/min		13.76	7.44	0.329	3.03	11.7	27.1	
1250					14.45	6.79	0.333	2.76	26.2	21.5	
1255	10.85'			1.5L	14.22	6.53	0.333	0.64	8.4	16.8	
1300					14.08	6.45	0.333	0.58	5.8	7.9	
1305				3L	14.13	6.41	0.333	0.54	7.5	20.5	
1310					14.30	6.43	0.332	0.54	8.2	9.8	
1315	10.85'			4.5L	14.36	6.42	0.331	0.54	6.2	6.1	
1320					14.43	6.39	0.331	0.52	7.1	2.4	
1325				6L	14.51	6.40	0.331	0.52	5.9	1.3	
1330	10.85'				14.55	6.40	0.330	0.51	6.6	0.7	
1335				7.5L	14.58	6.41	0.330	0.50	4.0	0.8	
1340	10.85'			~8L	14.51	6.40	0.330	0.49	3.4	0.9	Sample collected
											Dup @ 1400

1. Pump dial setting (example: Hertz, cycles/min, etc.)
2. µSiemens per cm (same as µmhos/cm) at 25°C.
3. Oxidation reduction potential (ORP)
4. Target Drawdown not to exceed is 0.3 ft (about 4 inches)

Field Personnel: A. Maynard

ATTACHMENT 2

LABORATORY ANALYTICAL REPORT WITH DATA VALIDATION WORKSHEET

Data Usability Worksheet

Project Name : NRG Montville

Job Number : 631207126

Prepared By: Cathy Joe Mainville
Validated By: Kim Napier
Matrix: Groundwater

Date : 3/2/2017
Date : 3/6/2017

Analyte Group : Select Metals
Sulfate
Nitrogen, Nitrate + Nitrite
Orthophosphate
Nitrogen Nitrite
Total Organic Carbon
Sulfide

Analytical Method : EPA 200.7
EPA 300/SW846 9056A
EPA 353.2
EPA 365.3
SM 21 4500 NO2 B
SM21 5310 B
SM4500S2-F-11

Completed RCP Certification Form included: Yes

Laboratory ID No. : MC49654

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for	Allowable Holding Time	Analysis Date
2/15/2017	EPA 200.7		180 Days (Mercury 28 Days)	2/20/2017
2/15/2017	EPA 300/SW846 9056A - Sulfate		28 Days	2/18/2017
2/15/2017	EPA 353.2 - Nitrogen, Nitrate + Nitrite		28 Days	2/20/2017
2/15/2017	EPA 365.3 - Orthophosphate		48 Hours/ Client to filter sample at collection	2/16/2017
2/15/2017	SM 21 4500 NO2 B - Nitrogen Nitrite		48 hours	2/15/2017
2/15/2017	SM21 5310 B-11 - Total Organic Carbon		28 Days	2/20/2017, 2/21/2017
2/15/2017	SM4500S2-F-11 - Sulfide		7 Days	2/17/2017

Sample temperature within QC limits: Yes, 11.8 °C

Surrogate Recovery
Are all % recoveries within the allowable range ? NA

If No, List sample ID where range was exceeded: N/A

MS/MSD
Are all MS/MSD sample recoveries within the QC limits ? Yes

If No, list sample ID, date and compound where limit was exceeded: N/A

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded:

Equipment Field Blank ID : EQUIPMENT BLANK 2/15/2017

Trip Blank ID : N/A
Method Blank: 2/18/2017

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units:

Notes:
Batch MP98761
RPD(s) for Serial Dilution for Arsenic, Vanadium, Iron, Magnesium are outside control limits for sample MP98761-SD1.
Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP98761-SD1 for Iron: Serial dilution indicates possible matrix interference.
Iron results for AOC12-MW-402 should be estimated since %D > 10% due to serial dilution interference.

MP98761-SD1 for Magnesium: Serial dilution indicates possible matrix interference.
Magnesium results for AOC12-MW-402 should be estimated since %D > 10% due to serial dilution interference.

Reviewed By: Kim Napier

Report of Analysis

Client Sample ID:	AOC12-MW-402		
Lab Sample ID:	MC49654-1	Date Sampled:	02/15/17
Matrix:	AQ - Ground Water	Date Received:	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	9.0	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	300 J	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	<5000 J	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	<50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

e-Hardcopy 2.0
Automated Report

Technical Report for

CB&I

NRG Montville Lathrop Road, Montville, CT

631207126

SGS Accutest Job Number: MC49654

Sampling Date: 02/15/17

Report to:

CB&I
150 Royall Street
Canton, MA 02021
andrea.steele@cbi.com

ATTN: Andrea Steele

Total number of pages in report: 51

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Sample Summary

CB&I

Job No: MC49654

NRG Montville Lathrop Road, Montville, CT
Project No: 631207126

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC49654-1	02/15/17	11:20 AM		02/15/17	AQ	Ground Water	AOC12-MW-402
MC49654-1F	02/15/17	11:20 AM		02/15/17	AQ	Groundwater Filtered	AOC12-MW-402
MC49654-2	02/15/17	12:00 AM		02/15/17	AQ	Equipment Blank	EQUIPMENT BLANK
MC49654-3	02/15/17	13:40 AM		02/15/17	AQ	Ground Water	AOC12-MW-401
MC49654-3F	02/15/17	13:40 AM		02/15/17	AQ	Groundwater Filtered	AOC12-MW-401
MC49654-4	02/15/17	14:00 AM		02/15/17	AQ	Ground Water	AOC12-MW-401DUP
MC49654-4F	02/15/17	14:00 AM		02/15/17	AQ	Groundwater Filtered	AOC12-MW-401DUP

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: CB&I **Job No** MC49654

Site: NRG Montville Lathrop Road, Montville, CT **Report Date** 2/28/2017 10:09:36 A

4 Sample(s) were collected on 02/15/2017 and were received at SGS Accutest New England on 02/15/2017 properly preserved, at 11.8 Deg. C and intact. These Samples received a job number of MC49654. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. Sample received directly from field sampling.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method EPA 200.7

Matrix: AQ **Batch ID:** N:MP98761

- Analysis performed at SGS Accutest, Dayton, NJ.

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** N:GP3338

- Sulfate: Analysis performed at SGS Accutest, Dayton, NJ.

Wet Chemistry By Method EPA 353.2

Matrix: AQ **Batch ID:** R39558

- MC49654-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R39559

- MC49654-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Wet Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** N:GP3390

- Nitrogen, Nitrate + Nitrite: Analysis performed at SGS Accutest, Dayton, NJ.

Wet Chemistry By Method EPA 365.3

Matrix: AQ **Batch ID:** GN55650

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49654-3DUP, MC49654-3MS were used as the QC samples for Phosphate, Ortho.
- MC49654-1,-3 for Phosphate, Ortho: Filtration performed at filed.

Wet Chemistry By Method SM 21 4500 NO2 B

Matrix: AQ **Batch ID:** GP21212

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49654-1DUP, MC49654-1MS were used as the QC samples for Nitrogen, Nitrite.

Wet Chemistry By Method SM4500S2- F-11

Matrix:	AQ	Batch ID:	N:GN59400

- Sulfide: Analysis performed at SGS Accutest, Dayton, NJ.

Wet Chemistry By Method SM5310 B-11

Matrix:	AQ	Batch ID:	N:GP3384

- Total Organic Carbon: Analysis performed at SGS Accutest, Dayton, NJ.

Matrix:	AQ	Batch ID:	N:GP3421

- Total Organic Carbon: Analysis performed at SGS Accutest, Dayton, NJ.

SGS Accutest New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Laboratory Director for SGS Accutest New England or assignee as verified by the signature on the cover page has authorized the release of this report(MC49654).

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Accutest New England	**Job No**	MC49654
Site:	FDG: NRG Montville Lathrop Road, Montville, CT	**Report Date**	2/28/2017 12:00:51 P

On 02/16/2017, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 1.5 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of MC49654 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method EPA 200.7

Matrix: AQ **Batch ID:** MP98761

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49654-1MS, MC49654-1MSD, MC49654-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Vanadium, Iron, Magnesium are outside control limits for sample MP98761-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP98761-SD1 for Iron: Serial dilution indicates possible matrix interference.
- MP98761-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP3338

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP3390

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49654-3MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

Wet Chemistry By Method SM4500S2- F-11

Matrix: AQ **Batch ID:** GN59400

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM5310 B-11

Matrix: AQ **Batch ID:** GP3384

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** GP3421

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: MC49654
Account: CB&I
Project: NRG Montville Lathrop Road, Montville, CT
Collected: 02/15/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC49654-1	**AOC12-MW-402**					
Arsenic [a]		9.0	3.0		ug/l	EPA 200.7
Iron [a]		300	100		ug/l	EPA 200.7
Nitrogen, Nitrate [b]		0.99	0.11		mg/l	EPA 353.2
Nitrogen, Nitrate + Nitrite [a]		1.0	0.10		mg/l	EPA 353.2/LACHAT
Sulfate [a]		18.4	10		mg/l	EPA 300/SW846 9056A
MC49654-1F	**AOC12-MW-402**					
Arsenic [a]		8.7	3.0		ug/l	EPA 200.7
Iron [a]		140	100		ug/l	EPA 200.7
MC49654-2	**EQUIPMENT BLANK**					
No hits reported in this sample.						
MC49654-3	**AOC12-MW-401**					
Arsenic [a]		31.4	3.0		ug/l	EPA 200.7
Iron [a]		21600	100		ug/l	EPA 200.7
Magnesium [a]		5960	5000		ug/l	EPA 200.7
Sulfate [a]		93.2	10		mg/l	EPA 300/SW846 9056A
MC49654-3F	**AOC12-MW-401**					
Arsenic [a]		30.2	3.0		ug/l	EPA 200.7
Iron [a]		20600	100		ug/l	EPA 200.7
Magnesium [a]		5680	5000		ug/l	EPA 200.7
MC49654-4	**AOC12-MW-401DUP**					
Arsenic [a]		31.9	3.0		ug/l	EPA 200.7
MC49654-4F	**AOC12-MW-401DUP**					
Arsenic [a]		27.7	3.0		ug/l	EPA 200.7

(a) Analysis performed at SGS Accutest, Dayton, NJ.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	AOC12-MW-402		
Lab Sample ID:	MC49654-1	**Date Sampled:**	02/15/17
Matrix:	AQ - Ground Water	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	9.0	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	300	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	< 5000	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	< 50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-402		
Lab Sample ID:	MC49654-1	**Date Sampled:**	02/15/17
Matrix:	AQ - Ground Water	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	0.99	0.11	mg/l	1	02/20/17 16:01	ANJ	EPA 353.2
Nitrogen, Nitrate + Nitrite [b]	1.0	0.10	mg/l	1	02/20/17 16:01	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	02/15/17 18:15	EAL	SM 21 4500 NO2 B
Phosphate, Ortho [c]	< 0.10	0.10	mg/l	1	02/16/17 10:55	EAL	EPA 365.3
Sulfate [b]	18.4	10	mg/l	1	02/18/17 00:14	ANJ	EPA 300/SW846 9056A
Sulfide [b]	< 2.0	2.0	mg/l	1	02/17/17 11:30	ANJ	SM4500S2- F-11
Total Organic Carbon [b]	< 1.0	1.0	mg/l	1	02/21/17 19:02	ANJ	SM5310 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(b) Analysis performed at SGS Accutest, Dayton, NJ.
(c) Filtration performed at filed.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-402		
Lab Sample ID:	MC49654-1F	**Date Sampled:**	02/15/17
Matrix:	AQ - Groundwater Filtered	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.7	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	140	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	< 5000	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	< 50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	MC49654-2	**Date Sampled:**	02/15/17
Matrix:	AQ - Equipment Blank	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 3.0	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	< 100	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	< 5000	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	< 50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-401		
Lab Sample ID:	MC49654-3	**Date Sampled:**	02/15/17
Matrix:	AQ - Ground Water	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	31.4	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	21600	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	5960	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	< 50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-401		
Lab Sample ID:	MC49654-3	**Date Sampled:**	02/15/17
Matrix:	AQ - Ground Water	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	< 0.11	0.11	mg/l	1	02/20/17 16:04	ANJ	EPA 353.2
Nitrogen, Nitrate + Nitrite [b]	< 0.10	0.10	mg/l	1	02/20/17 16:04	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	02/15/17 18:15	EAL	SM 21 4500 NO2 B
Phosphate, Ortho [c]	< 0.10	0.10	mg/l	1	02/16/17 10:55	EAL	EPA 365.3
Sulfate [b]	93.2	10	mg/l	1	02/18/17 00:38	ANJ	EPA 300/SW846 9056A
Sulfide [b]	< 2.0	2.0	mg/l	1	02/17/17 11:30	ANJ	SM4500S2- F-11
Total Organic Carbon [b]	< 1.0	1.0	mg/l	1	02/20/17 20:02	ANJ	SM5310 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(b) Analysis performed at SGS Accutest, Dayton, NJ.
(c) Filtration performed at filed.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-401		
Lab Sample ID:	MC49654-3F	**Date Sampled:**	02/15/17
Matrix:	AQ - Groundwater Filtered	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	30.2	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Iron [a]	20600	100	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Magnesium [a]	5680	5000	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]
Vanadium [a]	< 50	50	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-401DUP		
Lab Sample ID:	MC49654-4	**Date Sampled:**	02/15/17
Matrix:	AQ - Ground Water	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	31.9	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	AOC12-MW-401DUP		
Lab Sample ID:	MC49654-4F	**Date Sampled:**	02/15/17
Matrix:	AQ - Groundwater Filtered	**Date Received:**	02/15/17
		Percent Solids:	n/a
Project:	NRG Montville Lathrop Road, Montville, CT		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	27.7	3.0	ug/l	1	02/18/17	02/20/17	ANJ	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: N:MA41406
(2) Prep QC Batch: N:MP98761

(a) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- RCP Form (SGS Accutest New Jersey)
- Sample Tracking Chronicle
- QC Evaluation: CT RCP Limits

CHAIN OF CUSTODY

PAGE 1 OF 1

SGS ACCUTEST

SGS Accutest of New England
50 D'Angelo Drive/495 Technology Center West, Building One, Marlborough, MA 01752
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #:
Bottle Order Control #:
SGS Accutest Quote #: NRG account pricing
SGS Accutest Job #: MC49654

Client / Reporting Information

Company Name: CB&I Environmental
Street Address: 150 Royall Street
City State Zip: Canton, MA 02021
Project Contact E-mail: Andrew.walker@cbi.com
Phone # Fax #: 617-589-6143
Sampler(s) Name(s) Phone #: Austin Magnant 774-551-6197

Project Information

Project Name: NRG Montville
Street: 74 Lathrop Road
City: Uncasville, CT
Project#: 631207126
Client PO#: p-card
Project Manager: Andy Walker

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB- Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	Total Metals (As,Fe,Mg,V) (EPA 200.7)	Dissolved Metals (As,Fe,Mg,V) (EPA 200.7)	Total Arsenic by EPA Method 200.7	Dissolved As by EPA Method 200.7	Sulfate (Method ASTM516-90,02)	Orthophosphate (Method 365.3)	Nitrate (EPA 353.2)	Sulfide (Method SM4500S2-F-11)	Nitrite (SM 21 4500 NO2 B)	Total Organic Carbon (SM21 5310B)		LAB USE ONLY
-1	ACC 12 - MW-962		02-15-17	1120	AM	GW	6	3	2	1							1	1			1	1	1	1	1	3		
-2	Equipment Blank		02-15-17	1250	AM	WW	1			1							1											
-3	ACC 12 - MW-961		02-15-17	1340	AM	GW	9	3	2	2	1	1					1	1			1	1	1	1	1	3		
-4	ACC 12 - MW-961 DUP		02-15-17	1400	AM	GW	2			2									1	1								
																	3	3			3	4	4	4	4	4		

SAMPLES RECEIVED DIRECTLY FROM FIELD SAMPLING

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- FULLT1 (Level 3+4)
- CT RCP
- MA MCP
- NYASP Category A
- NYASP Category B
- State Forms
- EDD Format: GIS Key
- Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Dissolved metals and orthophosphate samples have been field filtered.
QA/QC Reporting: CTDEEP RCP and Site-Specific QAPP.
Please email GIS Key formatted EDD & PDF to catherine.joe@cbi.com.

Turnaround Time (Business days)

- Std. 10 Business Days
- Std. 5 Business Days (By Contract only)
- 5 Day *RUSH*
- 3 Day *EMERGENCY*
- 2 Day *EMERGENCY*
- 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:
INITIAL ASESSMENT
LABEL VERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished By Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		02-15-17 1700	1	2	SAMPLES RECEIVED DIRECTLY FROM FIELD SAMPLING	2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4		Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable / On Ice / Cooler Temp. 11.3C

NOICE

SGS Accutest Sample Receipt Summary

Job Number: MC49654 **Client:** CB&I **Project:** NRG MONTVILLE

Date / Time Received: 2/15/2017 5:00:00 PM **Delivery Method:** Client **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (11.3/11.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☑	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IRGUN1		
3. Cooler media:	No Ice		
4. No. Coolers:	1		

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	
2. Trip Blank listed on COC:	☐	☑	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☐		☑

Sample Integrity - Condition	Y	or	N
1. Sample rec'd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Samples received directly from field sampling with no ice.

-1 AOC12-MW-402: No H2SO4 volume rec'd with this ID

-3 AOC12-MW-401: Received 2x250ml H2SO4 bottles with this ID. One has collection time 13:40, the second has collection time 11:20.

Sample Receipt Summary - Problem Resolution

Job Number: MC49654

CSR: Jeremy Vienneau **Response Date:** 2/16/2017

Response: The client confirmed that the H2SO4 volume with the collectio time of 11:20 should be MC49654-1 (AOC12-MW-420). See email in file.

MC49654: Chain of Custody
Page 3 of 3

Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: **Accutest New England** **Client:** **CB&I**

Project Location: **NRG Montville Lathrop Road, Montville, CT** **Project Number:** **1009644010 PO#**

Sampling Date(s): **2/15/2017**

Laboratory Sample ID(s): MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Methods: Refer to case narrative.

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes ☑ No ☐
1A	Where all the method specified preservation and holding time requirements met?	Yes ☑ No ☐
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes ☐ No ☐ NA ☑
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes ☑ No ☐
3	Were samples received at an appropriate temperature (<6° C)?	Yes ☐ No ☑
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes ☐ No ☑
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes ☑ No ☐
	b) Were these reporting limits met?	Yes ☑ No ☐
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes ☐ No ☑
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes ☑ No ☐

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  Position: Lab Director

Printed Name: H. (Brad) Madadian Accutest New England Date: 2/28/2017

Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: **Accutest New England** **Client:** **SGS Accutest New England**

Project Location: **FDG: NRG Montville Lathrop Road, Montville, CT** **Project Number:** **FDG18607**

Sampling Date(s): **2/15/2017**

Laboratory Sample ID(s): MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Methods: EPA 200.7, EPA 300/SW846 9056A, EPA 353.2/LACHAT, SM4500S2- F-11, SM

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes ☑ No ☐
1A	Where all the method specified preservation and holding time requirements met?	Yes ☑ No ☐
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes ☐ No ☐ NA ☑
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes ☑ No ☐
3	Were samples received at an appropriate temperature (<6° C)?	Yes ☑ No ☐
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes ☐ No ☑
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes ☑ No ☐
	b) Were these reporting limits met?	Yes ☑ No ☐
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes ☐ No ☑
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes ☑ No ☐

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Nancy L. Cole Position: Lab Director

Printed Name: Nancy Cole Date: 2/28/2017

Mid-Atlantic Laboratory

Internal Sample Tracking Chronicle

CB&I

Job No: MC49654

NRG Montville Lathrop Road, Montville, CT
Project No: 631207126

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC49654-1	Collected: 15-FEB-17 11:20 By: AM		Received: 15-FEB-17 By: TF			
AOC12-MW-402						
MC49654-1	SM 21 4500 NO2 B	15-FEB-17 18:15	EAL	15-FEB-17	EAL	NO2
MC49654-1	EPA 365.3	16-FEB-17 10:55	EAL			OPO4
MC49654-1	SM4500S2- F-11	17-FEB-17 11:30	ANJ			S
MC49654-1	EPA 300/SW846 9056A	18-FEB-17 00:14	ANJ	17-FEB-17		SO4
MC49654-1	EPA 200.7	20-FEB-17 14:17	ANJ	18-FEB-17	ANJ	AS,FE,MG,V
MC49654-1	EPA 353.2	20-FEB-17 16:01	ANJ			NO3O
MC49654-1	EPA 353.2/LACHAT	20-FEB-17 16:01	ANJ	20-FEB-17	ANJ	NO32
MC49654-1	SM5310 B-11	21-FEB-17 19:02	ANJ	21-FEB-17	ANJ	TOC
MC49654-2	Collected: 15-FEB-17 12:00 By: AM		Received: 15-FEB-17 By: TF			
EQUIPMENT BLANK						
MC49654-2	EPA 200.7	20-FEB-17 14:39	ANJ	18-FEB-17	ANJ	AS,FE,MG,V
MC49654-3	Collected: 15-FEB-17 13:40 By: AM		Received: 15-FEB-17 By: TF			
AOC12-MW-401						
MC49654-3	SM 21 4500 NO2 B	15-FEB-17 18:15	EAL	15-FEB-17	EAL	NO2
MC49654-3	EPA 365.3	16-FEB-17 10:55	EAL			OPO4
MC49654-3	SM4500S2- F-11	17-FEB-17 11:30	ANJ			S
MC49654-3	EPA 300/SW846 9056A	18-FEB-17 00:38	ANJ	17-FEB-17		SO4
MC49654-3	EPA 200.7	20-FEB-17 14:42	ANJ	18-FEB-17	ANJ	AS,FE,MG,V
MC49654-3	EPA 353.2	20-FEB-17 16:04	ANJ			NO3O
MC49654-3	EPA 353.2/LACHAT	20-FEB-17 16:04	ANJ	20-FEB-17	ANJ	NO32
MC49654-3	SM5310 B-11	20-FEB-17 20:02	ANJ	20-FEB-17	ANJ	TOC
MC49654-4	Collected: 15-FEB-17 14:00 By: AM		Received: 15-FEB-17 By: TF			
AOC12-MW-401DUP						
MC49654-4	EPA 200.7	20-FEB-17 14:45	ANJ	18-FEB-17	ANJ	AS
MC49654-1E	Collected: 15-FEB-17 11:20 By: AM		Received: 15-FEB-17 By: TF			
AOC12-MW-402						
MC49654-1E	EPA 200.7	20-FEB-17 14:48	ANJ	18-FEB-17	ANJ	AS,FE,MG,V

Internal Sample Tracking Chronicle

CB&I

Job No: MC49654

NRG Montville Lathrop Road, Montville, CT
Project No: 631207126

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC49654-3F	Collected: 15-FEB-17 13:40 By: AM			Received: 15-FEB-17 By: TF		
AOC12-MW-401						
MC49654-3E	EPA 200.7	20-FEB-17 14:51	ANJ	18-FEB-17	ANJ	AS,FE,MG,V
MC49654-4F	Collected: 15-FEB-17 14:00 By: AM			Received: 15-FEB-17 By: TF		
AOC12-MW-401DUP						
MC49654-4E	EPA 200.7	20-FEB-17 14:54	ANJ	18-FEB-17	ANJ	AS

QC Evaluation: CT RCP Limits

Job Number: MC49654
Account: CB&I
Project: NRG Montville Lathrop Road, Montville, CT
Collected: 02/15/17

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No Exceptions found.

* Sample used for QC is not from job MC49654

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC49654
Account: FDG - CB&I
Project: NRG Montville Lathrop Road, Montville, CT

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrite	GP21212/GN55646	0.010	0.0	mg/l	.02	0.019	95.0	80-120%
Phosphate, Ortho	GN55650	0.10	0.016	mg/l	.2	0.19	95.0	80-120%

Associated Samples:
Batch GN55650: MC49654-1, MC49654-3
Batch GP21212: MC49654-1, MC49654-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC49654
Account: FDG - CB&I
Project: NRG Montville Lathrop Road, Montville, CT

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrite	GP21212/GN55646	MC49654-1	mg/l	0.0084	0.0084	0.0	0-20%
Phosphate, Ortho	GN55650	MC49654-3	mg/l	0.029	0.029	0.0	0-20%

Associated Samples:
Batch GN55650: MC49654-1, MC49654-3
Batch GP21212: MC49654-1, MC49654-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC49654
Account: FDG - CB&I
Project: NRG Montville Lathrop Road, Montville, CT

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrite	GP21212/GN55646	MC49654-1	mg/l	0.0084	.02	0.028	98.0	75-125%
Phosphate, Ortho	GN55650	MC49654-3	mg/l	0.029	.2	0.24	105.5	75-125%

Associated Samples:
Batch GN55650: MC49654-1, MC49654-3
Batch GP21212: MC49654-1, MC49654-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- QC Evaluation: CT RCP Limits

CHAIN OF CUSTODY

SGS ACCUTEST

50 D'Angelo Drive, 495 Technology Center West, Bldg One, Marlborough, MA 01752
TEL: 508-481-6200 FAX: 508-481-7753
www.sgs.com

FED-EX Tracking # 7008 8601 0808
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job MC49654

Client / Reporting Information

Company Name: SGS Accutest
Street Address: 50 D'Angelo Drive, 495 Technolgy Center West, BLDG One
City: Marlbourough, State: MA, Zip: 0175;
Project Contact: jeremyv, E-mail: jeremyv@accutest.com
Phone #: 508-481-6200, Fax #:
Sampler(s) Name(s): AM, Phone:

Project Information

Project Name: NRG Montville Lathrop Road, Montville, CT
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH+ZN	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	AS ,	AS ,FE ,MG ,NO32 ,S ,SO4 ,TOC ,V ,	AS ,FE ,MG ,V ,	LAB USE ONLY
1F	AOC12-MW-402		2/15/16	11:20:00 AM	AM	AQ	1			x								X	A32
1	AOC12-MW-402		2/15/16	11:20:00 AM	AM	AQ	6	x	x	x	x						X		645
2	EQUIPMENT BLANK		2/15/16	12:00:00 PM	AM	AQ	1			x								X	V64
3F	AOC12-MW-401		2/15/16	1:40:00 PM	AM	AQ	1			x								X	
3	AOC12-MW-401		2/15/16	1:40:00 PM	AM	AQ	6	x	x	x	x						X		
4F	AOC12-MW-401DUP		2/15/16	2:00:00 PM	AM	AQ	1			x						X			
4	AOC12-MW-401DUP		2/15/16	2:00:00 PM	AM	AQ	1			x						X			

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 3/1/2017

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:
INITIAL ASSESSMENT 1/20
LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other CTRCP

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Ship to ALNJ -- 10 Day TAT **Metals by 200.7**

QA/QC Reporting: CTDEEP RCP and Site-Specific QAPP
*See attached p-note

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 2/15/17 1700	Received By: 1	Relinquished By: 2	Date Time: 2/16/17 0935	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 177 [X] Intact [ ] Not intact	Preserved where applicable [ ]	On Ice [X] Cooler Temp. 1.1°C IR

MC49654: Chain of Custody
Page 1 of 2
SGS Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: MC49654 **Client:** _____ **Project:** _____

Date / Time Received: 2/16/2017 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

7.1
7

MC49654: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

SGS Accutest New England

Job No: MC49654

FDG: NRG Montville Lathrop Road, Montville, CT
Project No: 631207126

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC49654-1	Collected: 15-FEB-17 11:20 By: AM AOC12-MW-402		Received: 15-FEB-17 By: AL			
MC49654-1	SM4500S2- F-11	17-FEB-17 11:30	CB			S
MC49654-1	EPA 300/SW846 9056A	18-FEB-17 00:14	TG	17-FEB-17	TG	SO4
MC49654-1	EPA 200.7	20-FEB-17 14:17	ND	18-FEB-17	AA	AS,FE,MG,V
MC49654-1	EPA 353.2/LACHAT	20-FEB-17 16:01	YZ	20-FEB-17	YZ	NO32
MC49654-1	SM5310 B-11	21-FEB-17 19:02	CD	21-FEB-17	CD	TOC
MC49654-2	Collected: 15-FEB-17 12:00 By: AM EQUIPMENT BLANK		Received: 15-FEB-17 By: AL			
MC49654-2	EPA 200.7	20-FEB-17 14:39	ND	18-FEB-17	AA	AS,FE,MG,V
MC49654-3	Collected: 15-FEB-17 13:40 By: AM AOC12-MW-401		Received: 15-FEB-17 By: AL			
MC49654-3	SM4500S2- F-11	17-FEB-17 11:30	CB			S
MC49654-3	EPA 300/SW846 9056A	18-FEB-17 00:38	TG	17-FEB-17	TG	SO4
MC49654-3	EPA 200.7	20-FEB-17 14:42	ND	18-FEB-17	AA	AS,FE,MG,V
MC49654-3	EPA 353.2/LACHAT	20-FEB-17 16:04	YZ	20-FEB-17	YZ	NO32
MC49654-3	SM5310 B-11	20-FEB-17 20:02	CD	20-FEB-17	CD	TOC
MC49654-4	Collected: 15-FEB-17 14:00 By: AM AOC12-MW-401DUP		Received: 15-FEB-17 By: AL			
MC49654-4	EPA 200.7	20-FEB-17 14:45	ND	18-FEB-17	AA	AS
MC49654-1E	Collected: 15-FEB-17 11:20 By: AM AOC12-MW-402		Received: 15-FEB-17 By: AL			
MC49654-1E	EPA 200.7	20-FEB-17 14:48	ND	18-FEB-17	AA	AS,FE,MG,V
MC49654-3E	Collected: 15-FEB-17 13:40 By: AM AOC12-MW-401		Received: 15-FEB-17 By: AL			
MC49654-3E	EPA 200.7	20-FEB-17 14:51	ND	18-FEB-17	AA	AS,FE,MG,V

Internal Sample Tracking Chronicle

SGS Accutest New England

Job No: MC49654

FDG: NRG Montville Lathrop Road, Montville, CT
Project No: 631207126

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC49654-4	Collected: 15-FEB-17 14:00 By: AM AOC12-MW-401DUP			Received: 15-FEB-17 By: AL		
MC49654-4	EPA 200.7	20-FEB-17 14:54	ND	18-FEB-17	AA	AS

QC Evaluation: CT RCP Limits

Job Number: MC49654
Account: SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT
Collected: 02/15/17

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No Exceptions found.

* Sample used for QC is not from job MC49654

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	16	22		
Antimony	6.0	2.7	3.1		
Arsenic	3.0	1.4	2.8	0.50	<3.0
Barium	200	.5	.54		
Beryllium	1.0	.1	.31		
Bismuth	20	3.6	2.8		
Boron	100	4.6	2.4		
Cadmium	3.0	.4	.43		
Calcium	5000	45	14		
Chromium	10	.5	1.1		
Cobalt	50	.4	.41		
Copper	10	.5	2.6		
Iron	100	2.8	18	2.3	<100
Lead	3.0	1.2	2.5		
Lithium	20	3.7	3.5		
Magnesium	5000	21	90	192	<5000
Manganese	15	.1	.48		
Molybdenum	20	.4	1.4		
Nickel	10	.6	.64		
Palladium	50	3	2.8		
Phosphorus	50		2.8		
Potassium	10000	84	99		
Selenium	10	3.2	3.6		
Silicon	200	2.3	15		
Silver	10	1	.97		
Sodium	10000	38	25		
Sulfur	50	4.1	6.9		
Strontium	10	.1	.22		
Thallium	2.0	1.8	1.8		
Tin	10	1.1	1.6		
Titanium	10	.5	1.4		
Tungsten	50	1.9	2.1		
Vanadium	50	.4	.72	1.1	<50

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	RL	IDL	MDL	MB raw	final
Zinc	20	1.8	1.2		
Zirconium	10	.4	1		

Associated samples MP98761: MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.0	1960	2000	97.6	3.1	10
Barium	anr					
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	300	25600	25000	101.2	0.8	10
Lead	anr					
Lithium						
Magnesium	2360	27000	25000	98.6	0.7	10
Manganese						
Molybdenum						
Nickel						
Palladium						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium	7.2	1960	2000	97.6	3.6	10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zinc	anr					
Zirconium						

Associated samples MP98761: MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	9.0	1900	2000	94.6	70-130
Barium	anr				
Beryllium					
Bismuth					
Boron					
Cadmium					
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron	300	25400	25000	100.4	70-130
Lead	anr				
Lithium					
Magnesium	2360	26800	25000	97.8	70-130
Manganese					
Molybdenum					
Nickel					
Palladium					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium	7.2	1890	2000	94.1	70-130

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zinc	anr			
Zirconium				

Associated samples MP98761: MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	1960	2000	98.0	85-115
Barium	anr			
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	23700	25000	94.8	85-115
Lead	anr			
Lithium				
Magnesium	23200	25000	92.8	85-115
Manganese				
Molybdenum				
Nickel				
Palladium				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium	1910	2000	95.5	85-115

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zinc	anr			
Zirconium				

Associated samples MP98761: MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	9.00	12.8	42.2 (a)	0-10
Barium	anr			
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	300	354	18.0*(b)	0-10
Lead	anr			
Lithium				
Magnesium	2360	2780	17.4*(b)	0-10
Manganese				
Molybdenum				
Nickel				
Palladium				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium	7.20	9.50	31.9 (a)	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

QC Batch ID: MP98761 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/18/17

Metal	MC49654-1 Original SDL 1:5	%DIF	QC Limits
Zinc	anr		
Zirconium			

Associated samples MP98761: MC49654-1, MC49654-2, MC49654-3, MC49654-4, MC49654-1F, MC49654-3F, MC49654-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

General Chemistry

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP3338/GN59545	2.0	0.0	mg/l	80	82.4	103.0	90-110%
Nitrogen, Nitrate + Nitrite	GP3390/GN59650	0.10	0.0	mg/l	2	2.00	100.0	90-110%
Sulfate	GP3338/GN59545	10	0.0	mg/l	80	78.2	97.8	90-110%
Sulfide	GN59400			mg/l	10.2	9.7	95.1	80-120%
Sulfide	GN59400	2.0	0.0	mg/l	5.12	5.0	97.7	80-120%
Total Organic Carbon	GP3384/GN59647	1.0	0.0	mg/l	10	10.3	103.0	90-110%
Total Organic Carbon	GP3421/GN59712	1.0	0.0	mg/l	10	10.1	101.0	90-110%

Associated Samples:
Batch GP3338: MC49654-1, MC49654-3
Batch GP3384: MC49654-3
Batch GP3390: MC49654-1, MC49654-3
Batch GP3421: MC49654-1
Batch GN59400: MC49654-1, MC49654-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC49654
Account: ALNE - SGS Accutest New England
Project: FDG: NRG Montville Lathrop Road, Montville, CT

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP3390/GN59650	MC49654-3	mg/l	0.033	1	1.0	96.7	90-110%

Associated Samples:
Batch GP3390: MC49654-1, MC49654-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits